

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

27 Aug
1944
1000

THE AGRICULTURAL SITUATION

January 1, 1938

A Brief Summary of Economic Conditions

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture

Subscription price, 25 cents per year; single copy, 5 cents; foreign price, 45 cents; payable in cash or money order to the Superintendent of Documents, Government Printing Office, Washington, D. C.

VOLUME 22 - NUMBER 1 - WASHINGTON, D. C.



IN THIS ISSUE

	Page
Commodity Reviews.....	2-7
Relative Income From Farming in 1937.....	<i>W. F. Callander</i> 8
Costs Reduce Gain in Farm Income.....	<i>C. M. Purves</i> 9
Produce Markets Need Reorganizing.....	<i>W. C. Crow</i> 11
Agricultural Credit Conditions.....	<i>E. J. Engquist, Jr.</i> 13
Deciduous Fruit Exports Increase.....	<i>A. C. Edwards</i> 16
The Chains Sell Fruits and Vegetables.....	<i>A. C. Hoffman</i> 18
Trends in Fruit Production.....	<i>G. E. Ockey</i> 20
Frozen Foods Industry Expanding.....	<i>Wm. Broxton</i> 23

NINETEEN THIRTY-SEVEN ended with signs of lessened pressure on the downtrend of commodity prices. The situation suggested the possibility of at least a temporary turn for the better. Encouraging was the firming of cotton prices despite the addition of 500,000 bales to a crop already of record proportions. * * * The 1937 cash income of farmers was estimated by B. A. E. at \$8,500,000,000. This was \$580,000,000 more than in 1936. It was the largest cash income since 1930. But there was also an increase in farm costs during the year—enough possibly to offset most of the gain in income as compared with 1936. * * * November industrial production by factories processing farm products was 25 percent less than in November 1936. But the purchasing power of nonagricultural income per capita was 4 percent higher. * * * Big crops and reduced industrial and consumer demand are an unfavorable combination. Hope lies in a better balancing of the scales by midyear.

Commodity Reviews

DEMAND: Stabilizing

INDICATIONS of a possible turn for the better in the economic situation as affecting agriculture and industry appeared in mid-December. There was evidence of renewed interest by prospective buyers of some industrial goods, and a slight improvement in the demand for wheat and cotton. The possibility that the recession had been sufficiently discounted in the prices of some staple commodities was suggested.

The decline in industrial activity the past few months was precipitous. The Federal Reserve index of industrial production dropped about 25 percent from the summer peak. The decline in consumer purchasing power and in the demand for farm products has been slower and less severe, but has affected materially the prices of many agricultural commodities.

Advance buying in many lines in the past year stimulated production in excess of the movement of goods into consumption. By late summer the stimuli to advance buying had disappeared and factories began to run out of unfilled orders, contributing to recession in business activity.

Large inventories built up during the first half of 1937 enabled many concerns to refrain from buying until the situation cleared. Inventories now are being reduced; as they become depleted, new production will be required to replenish stocks. The recent decline in industrial activity seems to have been checked; there was no substantial further decline in December.

The outlook for foreign demand for farm products is for continuation of relatively large exports from surplus supplies in the United States during the next few months. Exports last fall were the largest in 2 years, but the products moved at lower prices. Foreign business activity continued at relatively high levels, supported

strongly by armaments production; but some signs of weakness have appeared

FARM INCOME: Less

For the first time in more than 2 years, farm income has dropped below the corresponding period the preceding year. Cash income from marketings in November was \$713,000,000, about evenly divided as between crops and livestock. This was \$194,000,000 less than in October, and \$36,000,000 less than in November 1936. Government payments were \$3,000,000, compared with \$4,000,000 in October, and with \$19,000,000 in November 1936.

From October to November 1937 there were sharp declines in prices of farm commodities, and a more-than-usual decrease in marketings of tobacco and meat animals. Reductions compared with November 1936 were marked as to hogs, cattle, wool, potatoes, apples and sugar beets.

On December 17 the Bureau of Agricultural Economics estimated the cash income of farmers for the full year 1937 at \$8,500,000,000. This was the largest in 7 years. It compared with \$7,918,000,000 in 1936, and with \$4,328,000,000 in 1932, the low point in 14 years of records. The peak of farm income during this period was \$10,479,000,000 in 1929.

The greater portion of the increase in income from 1936 to 1937 was from crops, chiefly from wheat, tobacco and the more important fruit crops.

The subjoined table gives the income figures for October and November 1936 and 1937:

	From marketings	From Government payments	Total
November:			
1937-----	\$713,000,000	\$3,000,000	\$716,000,000
1936-----	749,000,000	19,000,000	768,000,000
October:			
1937-----	907,000,000	4,000,000	911,000,000
1936-----	882,000,000	22,000,000	904,000,000

PRICES: Lower

The index of prices of farm products at 104 as of December 15 was the lowest in 20 months. The figure compared with 107 on November 15, and with 126 on December 15 a year ago.

The December decline was due

chiefly to lower prices of livestock, turning down sharply on increased marketings of hogs and reduced consumer demand. Cotton prices firmed during the month despite an increase of 500,000 bales in the indicated size of the crop.

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products ¹
1936			
December-----	126	128	98
1937			
January-----	131	130	101
February-----	127	132	96
March-----	128	132	97
April-----	130	134	97
May-----	128	134	96
June-----	124	134	93
July-----	125	133	94
August-----	123	132	93
September-----	118	130	91
October-----	112	128	88
November-----	107	128	84
December-----	104	128	81

¹ Ratio of prices received to prices paid.

Prices of Farm Products

Estimates of average prices received by producers at local farm markets based on reports to the Bureau of Agricultural Economics. Averag of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	Decem-ber average, 1909-13	Decem-ber 1936	Novem-ber 1937	Decem-ber 1937	Parity price, Decem-ber 1937
Cotton, lb-----cents	12.4	12.2	12.3	7.7	7.6	16.4
Corn, bu-----do	64.2	57.7	95.6	48.0	48.5	84.7
Wheat, bu-----do	88.4	86.7	114.5	81.9	83.6	116.7
Hay, ton-----dollars	11.87	11.99	11.08	8.74	8.79	15.67
Potatoes, bu-----cents	69.7	62.3	106.3	51.2	53.0	91.0
Oats, bu-----do	39.9	38.3	48.4	28.7	29.1	52.7
Soybeans, bu-----do	(¹)	(¹)	130.2	83.1	83.0	-----
Peanuts, lb-----do	4.8	4.6	3.6	3.2	3.2	6.3
Beef cattle, cwt-----dollars	5.21	5.03	6.17	6.53	6.08	6.88
Hogs, cwt-----do	7.22	6.73	9.09	8.25	7.54	9.53
Chickens, lb-----cents	11.4	10.6	12.6	16.9	16.4	15.0
Eggs, doz-----do	21.5	29.9	30.5	28.0	26.0	³ 42.9
Butterfat, lb-----do	26.3	29.9	33.6	36.2	38.4	² 37.9
Wool, lb-----do	18.3	² 18.6	30.1	26.0	23.6	24.2
Veal calves, cwt-----dollars	6.75	6.74	7.83	8.34	8.09	8.91
Lambs, cwt-----do	5.87	5.52	7.26	7.87	7.48	7.75
Horses, each-----do	136.60	132.10	93.20	88.00	86.20	180.30

¹ Prices not available.

² Adjusted for seasonality.

³ Revised.

CROPS: Record Production

Largest crop production on Government record was reported in the year-end survey of the Crop Reporting Board, issued on December 17. The production of 53 crops combined in 1937 was 112.1 percent of the 1923-32 predrought average. This compared with 79.6 percent in 1936, and with the smallest outturn on record—71.7 percent in 1934.

Biggest increase this year compared with the predrought average was in the production of 8 vegetables for manufacture, estimated at 143.5 percent, compared with 124.4 in 1936. The smallest production of these vegetables was 50.4 percent in 1921.

Production of 13 fruits was estimated at 134.1 percent of average compared with 101.8 in 1936, and the smallest recorded production was 57.5 percent in 1921. Production of 17 vegetables for market was 130.9 percent of the predrought average, compared with 127.5 last year, and with a recorded low of 51.1 in 1919.

Production of 22 field crops was 109.6 percent of the average compared with 76.2 in 1936, and with the low of 67.4 in 1934.

WHEAT: Big Acreage

Wheat news of the month was the Government report of winter acreage. Another big crop has been sown, little short of the record acreage last year. The area is 57,492,000 acres. Last year it was 57,612,000. The 1927-31 5-year average was 45,290,000 acres.

Sharp reductions in acreage were reported in most of the North Central States east of the Missouri River. Marked increases were reported in Washington and Oregon; moderate ones in Kansas, Nebraska, and Colorado. There was no change in Texas and New Mexico.

The acreage of rye sown for all purposes in the fall of 1937 was 9.5 percent less than in 1936. It was 6,869,000 acres compared with 7,593,000 in 1936, and with 6,494,000 in 1935.

The Bureau lowered its estimate of the 1937-38 world wheat crop by about 29,000,000 bushels. The figure now stands at 3,779,000,000 bushels compared with 3,538,000,000 a year ago. The reduction from earlier estimates was in estimates for Argentina and the United States.

Increased marketings of wheat from the Southern Hemisphere are usually an important price factor in January. It is believed, however, that unless demand for wheat is materially less than as now indicated, the small world wheat supplies may tend to offset the factor of these marketings.

The world supply of wheat, excluding Russia and China, is only about 25,000,000 bushels more than the small supply in 1936-37.

COTTON: Priced Higher

Cotton prices have improved since the issuance of the December crop report which added 500,000 bales to the Government estimate. Sales of cotton in spot markets the end of December were much larger than in the same period a year earlier, but exports of cotton have been only slightly larger than in the corresponding period of 1936.

Domestic cotton mill activity slackened considerably during the month; the daily rate of activity has dropped more than a third since the peak reached last spring. But retail sales of cotton goods have been relatively large; a favorable factor since inventories are being reduced.

November farm income from sales of cotton was much less than in November a year ago, but Government loans on 1937 cotton increased the total above last year's figure. In November, 1,852,000 bales of cotton moved into Government hands; the loans on this cotton totaled more than \$81,000,000.

World consumption of all kinds of cotton in the first quarter of the current season was slightly more than in the corresponding period of 1936. But world utilization of American

cotton was slightly less, because of reduced consumption in the United States. Domestic consumption of cotton in the 4 months ended November was 2,217,500 bales, or 11 percent less than in the corresponding period last season.

FRUITS: Prices Steady

Prices of fruits in mid-December were little changed from November. Apples sold lower than in mid-December a year ago, but all citrus fruits except California Navel oranges were higher priced.

Cold-storage holdings of apples on December 1—estimated at more than 35,000,000 bushels—were the largest on record, exceeding stocks of a year earlier by about one-third. Most of the increase was in Central and Eastern States.

Market prices of oranges, since the beginning of the current season last fall, followed rather closely the prices of a year earlier. As usual, prices of Florida oranges improved just prior to Thanksgiving, but part of the gain was subsequently lost.

California Navel oranges began the season in late November at prices near those of a year earlier, but prices dropped sharply as market supplies increased. The California crop of Valencia oranges, which will furnish the bulk of supplies next summer, was indicated as of December 1 at about 25,500,000 boxes—representing a 50-percent increase over the freeze-damaged crop of 1937.

Grapefruit prices have declined seasonally since the beginning of the season in September, but are above prices of a year ago. Total shipments through December 11 were slightly less than a year earlier.

TRUCK CROPS: Damage

Truck crops—snapbeans, tomatoes, green peppers, and eggplant—in Florida were severely damaged by freezing temperatures and heavy frosts in early December. Hardier crops—escarole,

lettuce, celery, and cabbage—escaped serious loss, but yields probably will be reduced. West—in Texas and California—growing conditions were moderately favorable for the production and harvesting of most truck crops.

Shipments of most vegetables decreased in early December and prices tended slightly upward. Cuban and Mexican winter vegetables were in more plentiful supply. Receipts were arriving from Puerto Rico. Carloadings of Florida snap beans were expected to decrease until the winter acreage on the East Coast comes into bearing.

The delay in movement of Florida products afforded a better market opportunity for tomatoes and other truck crops from Cuba and the West Coast of Mexico. It is expected that Mexico will ship 3,300 to 4,000 cars of tomatoes to the United States this winter. About 500 carloads of green peas are expected from Mexico—considerably more than last season.

CATTLE: More Fed

Reduced slaughter of both cattle and calves in 1938 compared with 1937 is in prospect, but more well-finished cattle will be marketed. Many more cattle are being fed this season, with a large part of the increase in the Eastern Corn Belt States. The reduction in cattle slaughter next year, therefore, will be in the lower grades of steers and in cows and heifers. Normally, prices of the lower grades of cattle would be strengthened by reduced slaughter of these animals, but lessened consumer demand may be an offset.

Prices of choice and prime grade steers at Chicago have declined sharply since the highest level of prices in 16 years of record was reached in October. Prices of good grade steers and heifers also have declined sharply. The price declines represented a readjustment of the unusually wide spread between the better and lower grades of slaughter cattle, and a weakening in consumer demand for meats.

The cattle feeding situation is similar to that of late 1935. But supplies of corn and high protein feeds are larger than at that time; prices of fed cattle are about the same. The average cost of stocker and feeder cattle last summer and fall was somewhat higher than in 1935, but lower in early December.

Shipments of stocker and feeder cattle from stockyards markets into the Corn Belt, July to November, were the largest in 6 years. In November, as in previous months, shipments into Corn Belt States east of the Mississippi River were relatively larger than shipments into the States west of the River. In-shipments, west of the Mississippi, July to November, were larger than in the drought years 1934 and 1936, but the smallest for all other years since 1919.

HOGS: Prices Steady

Hog prices steadied in early December, following sharp declines since mid-August. The 40-percent break in prices during the period was due to a larger-than-average seasonal increase in hog marketings, weakened consumer demand for meats and lard, and weak storage demand for hog products.

The semiannual pig crop report of the Bureau of Agricultural Economics (issued December 23) showed a decrease of 1 percent in the 1937 fall pig crop compared with the fall of 1936. It indicated farmers intentions to breed about 5 percent more sows for farrowing next spring.

Total tonnage of hogs to be marketed in the 1937-38 marketing year which began October 1 is expected to be about the same as in 1936-37. But prices probably will average lower, influenced by a weaker consumer demand for meats. Some seasonal advance in hog prices may occur early in 1938 if storage demand for hog products improves. In view of the probable larger slaughter supplies of hogs next summer, prices in that period probably will average considerably lower than in the summer of 1937.

The ratio of hog prices to corn prices has been much above average since September. It is expected to continue so for several months.

LAMB FEEDING: Increase

More lambs were on feed this January 1 than last. More are in the Corn Belt, increases in Illinois, Iowa, Missouri, Nebraska, and Kansas more than offsetting decreases in Michigan and Minnesota. Little change is indicated in other Corn Belt States.

Shipments of feeder lambs from stockyards markets into the Corn Belt during the 5 months, July to November, were about 13 percent larger than in 1936. There was a large increase, also, in the number moving direct to the feed lots.

But fewer lambs are being fed in the Western States this year, a 20 percent increase in Colorado being more than offset by reductions in other Western States, especially west of the Continental Divide where the number fed last year was the largest in 14 years of Bureau records.

Weather conditions have been favorable for feeding operations in most areas; lambs have made good gains. A relatively large number of lambs is expected to reach marketable condition before the middle of February. Should marketings be delayed by low prices, the market supply later in the season may include an unusually large proportion of heavy-weight lambs.

Prices of lambs in early December were slightly higher than a year earlier, but below early fall figures. The decline in prices this fall, in contrast with usual seasonal stability, was due to decreased consumer demand for meats and a decline in prices of wool. The number of sheep and lambs slaughtered under Federal inspection in November was the smallest for the month since 1930.

More fed lambs will go to market this season than last, but the increase may be offset by reduced marketings of other lambs and sheep.

WOOL: Prices Lower

The wool market situation has been featured by large stocks of raw wool held by manufacturers, large stocks of finished and semifinished goods, decreased mill activity, and reduced prices of wool in adjustment to lower quotations in foreign markets.

Supplies of apparel wool in the United States at the beginning of the new marketing season on April 1, 1938, are expected to be about average and larger than a year earlier. Supplies on November 1 were smaller than on that date in any of the 5 years, 1930 to 1934, but were larger than in 1935 and 1936.

As stocks of finished and semi-finished goods are reduced in the next few months some increase in wool buying is expected—possibly at the December level of prices.

DAIRY PRODUCTS: Peak Prices

Domestic butter prices in early December were highest for this time of year since 1929. In contrast, prices of New Zealand butter at London have declined. The spread between domestic and foreign prices in December was larger than the United States import tariff rate. This is expected to attract imports and to check the rise in domestic butter prices.

Milk production in early December was about the same as a year earlier. Heavy feeding is expected to continue through winter, since feed supplies are relatively large and prices of dairy products are high in relation to feeds. This will yield more milk during the first half of 1938 compared with the same period in 1937.

Production of principal manufactured dairy products in October was the smallest for the month since 1932, and large quantities of storage stocks have been drawn upon to satisfy the relatively good consumer demand. Combined stocks of butter and American cheese on December 1 were the smallest for that date since 1932.

The farm price of butterfat in mid-November, at 36.2 cents per pound, was equivalent to the price of 40.7 pounds of feed grains, compared with 20.7 pounds a year earlier, and the 1925-29 November average of 35.2 pounds. In only 3 of the past 28 years—in 1921, 1931, and 1932—were butterfat prices in November higher in relation to feeds than in 1937.

CHICKENS: Lower

Prices of chickens have been declining for the last 2 months, but continue to rule higher than a year ago. Prices of broilers weakened in late December, affected by heavy marketings from the Eastern Shore winter broiler producing area. Eggs have declined seasonally, influenced by large marketings out of cold storage.

Farm flocks on December 1 were the smallest and the production of eggs per hen the largest for that date since 1925. The average number of layers per flock was 74.4 birds—6 percent less than on December 1 a year ago, and 9 percent less than the December 1 average of the 10 years, 1925-34. Largest reduction is in the West North Central States.

Favorable weather through November maintained record production of eggs. The average production on December 1 was 18.6 eggs per 100 hens and pullets of laying age—16 percent more than on December 1, 1936, and 34 percent above the December 1 ten-year average.

The production of eggs per farm flock in early December also set a record. The average for the country was 14.1 eggs per flock. This was 10 percent more than at the corresponding time a year ago, and 23 percent more than the December 1 ten-year average. Total production of eggs per flock, January to December 1937, was 10 percent more than in 1936. It was the largest production since 1931 when flocks were much larger.

Relative Income From Farming in 1937

CROP reporters were asked on December 1, 1937, to report the "cash income from farming in 1937" as a percentage of their "usual" cash income. The returns revealed marked differences in income between regions and even between adjoining counties.

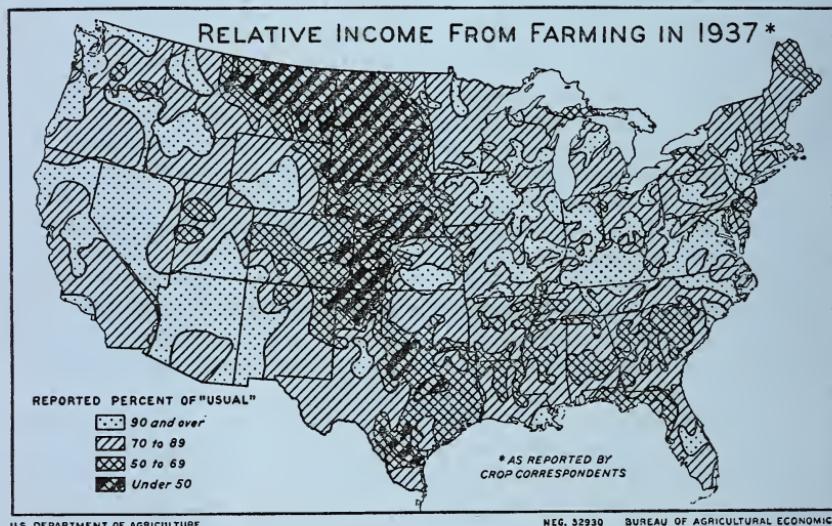
The differences in income were influenced not only by the volume and prices of crops produced in 1937, but by returns from livestock and livestock products sold during the year, and to some extent by the volume of farm products grown in 1936 and sold in 1937.

The reports disclosed a low relative income throughout the drought area. Income averaged less than 25 percent of "usual" in large areas in western North Dakota and northeastern Montana where most crops failed in 1936

and 1937, where farmers have had little income except that obtained from the sale of breeding flocks and herds.

The reports averaged low in some sections where incomes were sharply reduced last fall by the low prices of potatoes, apples, cotton, and some other cash crops. But they averaged more than 100 percent in some western range areas and some eastern bluegrass areas where the income of farmers is derived almost entirely from sales of livestock and livestock products.

Some of the important regional differences in income are shown on the accompanying map. Sharply outlined are the drought areas, the areas affected by low prices, and the areas where farmers believe they had a good year. The shadings appear to show where farmers need help.



The survey is an experiment in an effort to secure more information from crop correspondents regarding general agricultural conditions in their respective localities. It is quite possible that their judgment regarding such matters

as general crop prospects, local feed supplies, and farm income will be found valuable as their reports regarding the condition of individual crops.

W. F. CALLANDER.

Costs Reduce Gain in Farm Income

THE total cash income of farmers in 1937, estimated at \$8,500,000,000, was \$580,000,000, or 7.3 percent, more than in 1936. It was nearly twice as large as the \$4,328,000,000 received in 1932. But it was much below the \$10,479,000,000 received in 1929 which was the largest income in 14 years of record, back to 1924.

Estimates of cash income are a summation of the monthly estimates made during the calendar year of income from farm marketings and from Government payments. They are designed to eliminate duplications that occur where crops and livestock products are valued separately and no allowance is made for crops used for seed, fed to livestock, or used for food on farms where produced.

The estimates indicate the amount of money available to farmers for paying taxes and interest, and for purchasing commodities and services used in operating their farms, and in supporting their families. However, the effect of changes in prices of purchased commodities and services upon the farmers' welfare is nearly as great as changes in income.

FROM 1936 to 1937 the increase in farm income of 7.3 percent was accompanied by an advance of nearly 5 percent in the prices of commodities together with interest and tax charges, so that farmers were able to buy only about 2.5 percent more with their 1937 income than with their 1936 income.

The fluctuations in farm income and in prices paid by farmers, including interest and taxes, from 1924 to 1937 are shown in the following table. From 1924 to 1929 both farm income and prices paid by farmers were relatively stable. From 1929 to 1932 both series declined sharply, but farm income declined most and in 1932 farmers were able to buy only about 69 percent as many commodities and services as in 1929.

Year	Cash income and Government payments <i>Mil. dollars</i>	Index of prices paid, interest and taxes combined 1909-14
1924	9,785	165
1925	10,324	170
1926	9,993	168
1927	10,016	166
1928	10,289	168
1929	10,479	166
1930	8,451	158
1931	5,899	138
1932	4,328	120
1933	5,117	118
1934	6,348	128
1935	7,090	130
1936	7,920	129
1937 ¹	8,500	135

¹ Preliminary.

From 1932 to 1937 both farm income and prices paid by farmers increased but farm income made the greatest advance. In 1937 farmers as a group were able to buy about the same amount of goods and services with their income as in 1929. However, these figures do not take into account the increase in the number of farms and in farm population since 1929, so that the quantity of goods which could be purchased by the 1937 income of the average farm family was slightly lower than in 1929.

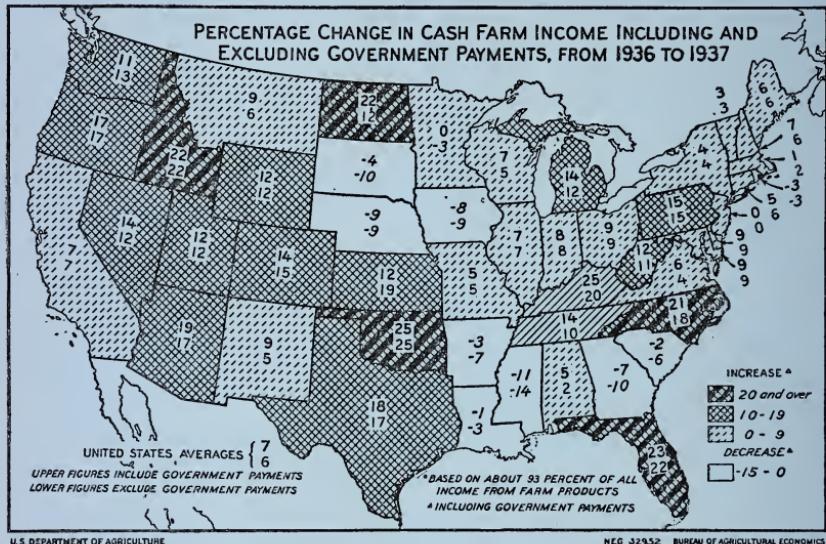
INCOME from wheat, flax, tobacco, and the more important fruit crops, particularly cherries, peaches, grapes, apples, and strawberries was considerably more in 1937 than in 1936. But there were several important crops for which income was smaller in 1937 than in 1936, notably cotton, potatoes, corn, barley, buckwheat, and sugar beets. Income from sales of all crops during 1937 amounted to \$3,480,000,000 compared with \$3,462,000,000 in 1936.

Income from hogs was also much lower in 1937, but it was more than offset by larger income from cattle and calves, and sheep and lambs. Income from milk products and poultry and eggs was slightly higher in 1937,

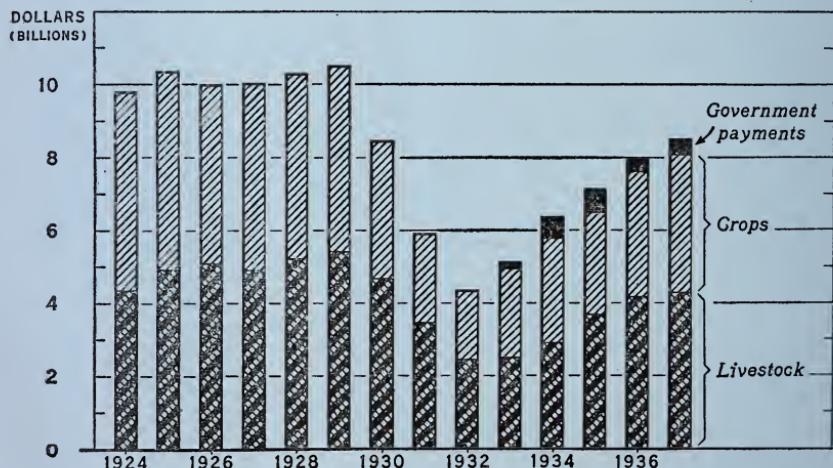
so that total income in 1937 from livestock and livestock products was \$4,280,000,000 compared with \$4,171,000,000 in 1936.

Larger Government payments in 1937 aided in increasing the total farm income over that of 1936. Government payments are estimated at \$380,000,000 for 1937 compared with \$287,000,000 in 1936.

As shown by the accompanying map, the change in total farm income from 1936 to 1937 was not uniform in all States. The greatest improvement occurred in Oklahoma, where crop production was much larger than a year earlier, and in Kentucky where crop production was above average in 1937 and prices were also higher than in 1936. Other



INCOME FROM FARM MARKETINGS AND GOVERNMENT PAYMENTS TO FARMERS, UNITED STATES, 1924-37



U. S. DEPARTMENT OF AGRICULTURE

NEG. 32955 BUREAU OF AGRICULTURAL ECONOMICS

States showing marked improvement compared with a year ago were North Carolina, Florida, North Dakota, and Idaho. Income in many of the Cotton States in 1937 was less than in 1936 in spite of the record cotton crop, the increase in cotton marketings during 1937 being more than offset by lower

prices. Income in many of the West North Central States was also lower in 1937, the shortage of feed in these States in the early part of 1937 having greatly restricted the marketing of livestock and livestock products.

C. M. PURVES.

Produce Markets Need Reorganizing

THE cost of distributing fruits and vegetables from the farm to the consumer in 1936 was approximately 1.5 billion dollars. The major portion of this marketing bill was incurred after the produce reached the large cities. Wholesaling, jobbing, retailing, and trucking in these cities are expensive.

RECENT studies by the Bureau of Agricultural Economics of the organization and facilities of the wholesale fruit and vegetable markets in 40 large cities indicate real possibilities for reducing the bill for wholesaling, jobbing, and trucking. In many cities the markets are very old; commonly they have undergone little change in more than a quarter of a century. Since these markets were established many changes have taken place. The population has increased manyfold; methods of transportation have changed from water and wagon to rail and motortruck; produce from distant producing areas has become available throughout the year; per capita consumption has increased. Yet with all these changes the markets have undergone little change. Many of them, new as well as old, are improperly located, designed, and equipped.

In many respects a large proportion of these markets are inadequate. Buildings are often not suitable for the efficient handling of produce. Stores are too narrow, too small, and were not designed properly to handle perishable products. Streets are not

wide enough to handle the traffic. The very layout of most of these markets is the result of haphazard growth and was not designed for efficiency in handling fruits and vegetables.

THE recent rapid increase in the movement of produce to market by motortruck has proceeded so far that about 44 percent of the supplies of fruits and vegetables in the large cities is received in this way. A large part of this business represents a shift from rail transportation. This huge influx of trucks loaded with produce has not been met with improved facilities. Markets are literally taxed beyond their capacity. Traffic stands in the streets of many markets for hours, produce is displayed in the stores, on the sidewalks, in the gutters, into the streets, and when the space is all taken remaining supplies are often left on trucks standing in and around the markets. Such conditions lead to increased spoilage, delays, needless labor, high rents, and other high costs.

In many cities such conditions as these have led to the establishing of competing markets in other sections. Many of these new markets are little better than the old. Railroad companies have built modern produce terminal markets, separate from the regular markets, and restricted their use to produce arriving over their own lines. Then other railroads have built competing markets to handle produce arriving over their lines.

Much money in this way has been wasted in providing unnecessary and duplicating facilities.

The waste in providing facilities for too many markets is not the only useless cost. Business is so split, that much cross-hauling among markets is necessary. Buyers must go from one market to another, often in widely separated parts of the city, to obtain supplies. Operating expense increases. Often so much time and handling is required that produce reaches the retail store in poor condition. Supplies are scattered, price-making becomes a difficult process, and it is difficult to enforce necessary regulations. These are only a few of the ways in which the existence of too many markets increases costs of distribution.

IN few cities is it possible for fruits and vegetables to be unloaded directly from the railroad cars into the wholesale market. A truck haul through heavy traffic is usually necessary. This is true even in new markets. In one large city the cartage expense for hauling produce from the railroad to the markets is nearly \$400,000 a year. In larger cities it is much higher, and, of course, in smaller cities it is much lower. In addition to the cartage costs, other costs due to inability to unload cars directly into the markets include delays, spoilage, inconvenience, and often the development of rackets making unnecessary charges for services rendered or levying charges for services which are not performed at all.

These are only a few of the conditions which are the cause of unnecessarily high distribution costs in the large city markets. What are the results of these conditions? The consumer pays more; the farmer gets less. In many cities, wholesale markets which could be important assets in the distribution of farm products are losing business because of their own inefficiency. Supplies are going around the markets directly to outly-

ing towns and to chain-store warehouses. Retailers and other buyers as well as farmers who must use these antiquated markets are at a competitive disadvantage. Even the wholesalers who operate in many of these markets find themselves in a dilemma of high costs and declining business. The marketing system is becoming demoralized by decentralization of supplies. Produce moves from everywhere to everywhere at unexpected times and in uncertain quantities. It is difficult to know what to expect as to supplies in any market.

IF it is in the interest of farmers, consumers, and members of the trade to have these conditions improved, why are better markets not provided in our large cities? In the first place, the wholesale-marketing system for fruits and vegetables in any city is a big thing. It represents a huge investment in facilities and carries on a large volume of business. Many different business enterprises make up a market—wholesalers, jobbers, retailers, railroads, trucking companies, farmers, shippers, brokers, and others.

Individuals and individual businesses are usually too small a part of the whole to bring about significant changes in the system. Collective action is necessary. Such action is difficult to obtain for several reasons. Property owners resent any proposal which will diminish the value of their property in any of the existing markets. Some dealers, railroads, and others, who have some competitive advantage because of existing conditions dislike any change which might rob them of this advantage. The interest of some dealers is diminished somewhat by the fact that many of these charges are passed back to the farmer or on to the consumer.

There is a natural resistance to change, on the part of many people. Some markets that have been built, because of lack of planning or exorbitant expense, have been pointed out as horrible examples of what might

happen if a change is undertaken. Marginal dealers who are barely able to remain in business are afraid of a change. Specific proposals which would reduce costs are opposed by persons or groups who would suffer a loss of income as a result of the change. These are some of the reasons why improvement has been slow in coming.

New interest in bringing about the necessary changes in the organization, facilities, and practices of our large city markets is developing among farmers, independent retailers, consumers, and among the wholesalers

who operate in these markets. The principal need is for local agencies to take the initiative in bringing together these interests and working out a solution of the problem of high costs of distribution. This solution will require an analysis of the situation in each city to determine needs and to formulate a plan, followed by the development of some means to put the plan into effect. Improvement in marketing is overdue; ways should be found for accomplishing it.

W. C. CROW.

Agricultural Credit Conditions

ARICULTURAL credit activity appeared to be more nearly normal in 1937, compared with the drastic adjustments between 1930 and 1935. Increased agricultural prosperity, evidenced by larger farm income, increases in the prices of farm products and the rising value of farm real estate formed the background supporting this resumption of normal credit conditions. Most of the leading lending agencies continued to decrease their holdings of farm mortgages. A larger volume of short-term credit was outstanding from commercial banks and production-credit associations. Interest rates on long- and short-term credit continued low.

The amount of farm mortgage loans held by leading lending agencies except commercial banks decreased during 1937, as indicated in the accompanying chart. The farm mortgage holdings of life insurance companies had reached a peak of \$2,173,000,000 in 1928, decreased each subsequent year, and fell to \$897,000,000 on July 1, 1937. However, the rapid decrease in their investment in farm mortgages, characteristic of the preceding years, was not evident in 1937. This has been specially noticeable in recent months. Thirty-seven com-

panies in the Association of Life Insurance Presidents held \$683,000,000 of farm mortgage loans on October 31, 1937, compared with the same amount at the end of August and with \$688,000,000 at the end of June. This \$5,000,000 decrease from June to October, in 1937, is to be compared with a \$25,000,000 drop in 1936 and a \$35,000,000 drop in 1935 between these same months. A slight increase in the volume of new farm-mortgage loans by life insurance companies, and a decrease in the rapidity of liquidation of outstanding loans account for the fact that total investments in farm mortgages by life insurance companies is holding steady.

FARM mortgage loans of open commercial banks increased from \$488,000,000 on January 1, 1937 to \$504,000,000 on June 30, 1937. Prior to this upturn, their holdings of farm mortgages had fallen, from approximately 1.5 billion dollars in 1921. A part of the decrease in this series was due to the closing of banks and to the liquidation of farm mortgage loans by those banks which remained open.

The federally sponsored agencies have shown decreases in holdings of farm mortgage loans for the last 12 months. A peak of \$2,902,834,000 of

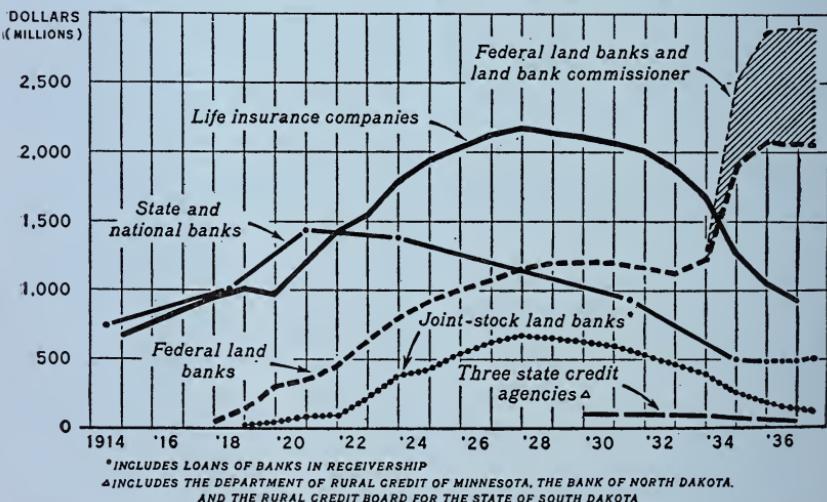
Federal land bank and Land Bank Commissioner loans was reached on October 31, 1936. By October 31, 1937, the loans outstanding of these agencies, amounting to \$2,862,800,000, was less than at the end of any month since November 1935. A decrease in the volume of new loans closed and, except in the areas affected by drought, increased collections of principal are credited as being important factors in this declining volume of outstanding loans. Among other factors accounting for this decline were the liquidation of loans by foreclosure and the acquirement of farms. The decline in the amount of new loans being currently made is very noticeable. The average monthly volume of new loans by the Federal land banks for the first 10 months of 1937 was \$5,414,000, which is less than the monthly average for any year since 1917 except 1929, 1930, 1931, and 1932.

The liquidation of farm mortgage holdings of the joint stock land banks and three State credit agencies has continued. The holdings of the joint stock land banks reached a peak of \$667,000,000 in 1927, and had been

reduced to \$459,000,000 by the end of 1932, prior to the legislation requiring complete liquidation. By October 31, 1937, including the banks in receivership, the joint stock land banks had outstanding \$111,217,000 in farm mortgage loans. The three State credit agencies, directed by a policy contemplating liquidation, have reduced their combined holdings of farm mortgages each year at least since 1929. Comparable data are not available to analyze the extent of liquidation or expansion prior to 1929.

THE current demand for new mortgage loans apparently is decreasing in spite of the increased demand, for funds to finance the purchase of farms. The Farm Credit Administration reports that an increasing proportion of applications for mortgage loans are for purchasing farms. The increased demand for loans for this purpose has been influenced by the rise in real-estate values and the material increase in voluntary transfers since 1935. Considerable credit is also being advanced in the form of purchase money mortgages and sales

TREND OF FARM MORTGAGE HOLDINGS OF PRINCIPAL LENDING AGENCIES, 1914 - JUNE 30, 1937



contracts, also involved in voluntary transfers.

The receipt of applications by the Federal land banks has fallen from an average of \$258,000,000 per month during the last 8 months of 1933 to \$5,465,000 for September 1937. The fall in demand is partly due, of course, to the earlier refinancing by the Federal land banks and Land Bank Commissioner of 1.5 billion dollars of mortgages in the period 1933-36. Not only is the demand for emergency refinancing over, but the normal demand for refinancing may be low.

The normal demand for refinancing usually occurs at the time of maturity of loans. With a higher percent of the total farm mortgage debt held by agencies which specialize in long-term amortized loans, the volume of loans maturing annually is substantially reduced.

INTEREST rates on mortgage loans continue low. Federal land bank loans are being made at 4 percent and the Land Bank Commissioner new loan rate continues at 5 percent. Both types of loans are subject to temporary reductions in rates affecting both old and new borrowers. The effect of these low rates has been national in scope but probably has affected the high interest rate areas even more than areas where rates were already relatively low. The interest rates at which loans were offered by other lenders have shown some decreases. Yield on 4 percent consolidated farm loan bonds averaged 2.82 in October 1937 as compared with 2.76 a year earlier and 4.14 in October 1934.

SHORT and intermediate term credits increased in volume during 1937. Personal and collateral loans outstanding to farmers by commercial insured banks amounted to \$661,606,000 on June 30, 1936, and \$726,400,000 on June 30, 1937. This increase in

the outstanding volume of this type of loan is the first to occur for a number of years. Since 1933, demand deposits of country banks have increased. The index of such deposits reached 105.0 in October 1937, adjusted for seasonal variations, compared with an annual average of 48.6 in 1933 and an average of 100 during the base period 1924-29.

BOTH the commercial banks and the institutions supervised by the Farm Credit Administration have lending capacities in excess of the demand of farmers with acceptable credit ratings. During the first 10 months of 1937 production credit associations loaned \$231,250,667 compared with \$181,986,896 in the same period in 1936. From June 30, 1936, to June 30, 1937, the outstanding loans of these associations increased from \$139,468,000 to \$160,051,000. However, these increases were largely offset by decreases in the volume of financing by other federally sponsored agencies, the increase in loans outstanding by all three being from \$228,725,000 on June 30, 1936, to \$230,302,000 on June 30, 1937. On October 31, 1937, loans outstanding by these three agencies had fallen to \$202,557,000. In 1936, the seasonal decline in the outstanding loans of these three federally sponsored agencies is indicated by a fall from \$228,725,000 to \$181,351,000.

Interest rates on short-term loans to farmers have been relatively low. Loans by commercial banks are being offered at rates slightly more favorable to borrowers than heretofore. The production credit association loan rate continues at 5 percent. The Federal intermediate credit banks' loan and discount rate is 2 percent. Emergency crop loans were offered this year at 4 percent compared with 5½ percent in previous years.

E. J. ENGQUIST, Jr.

Deciduous Fruit Exports Increase

EXPORTS of fresh apples and grapes from the beginning of the season in July through October were substantially larger than in the same period in 1936; but pear exports have lagged. Apple exports, although larger than last year, have been small considering the size of the crop. Exports of pears in the 4-month period, July to October, were less than exports in the same period of last year despite the large pear crop.

The failure of apples and pears to move out in larger volume appears to be due chiefly to competition from the large Canadian and European fruit crops. Exports should show an increase after December since low seasonal rates of duty will become effective in several countries and competitive supplies from other countries will be reduced. Exports of grapes have trended upward since 1934. The heavy exports so far this season are explained by the large crop.

Although exports of apples and pears have not been up to expectations, export values compare favorably with those of last year. Exports of apples have averaged \$1.46 a bushel, or a few cents under the average value in the same period of 1936. The average values of pears at \$1.92 a bushel and grapes at \$89 a short ton have exceeded those of last year.

NO group of products has benefited more under the trade agreement program than fruits. Apples and pears in particular have benefited since the United States leads the world in exports of these fruits. Grapes were granted a substantial reduction in a number of the agreements, particularly in the one with Canada. The quantity and value of exports of fresh apples, pears, and grapes from the United States in the 4-month period July to October, 1936 and 1937, are shown in the following table.

Fruit	1936		1937	
	Quantity 1,000	Unit value dollars	Quantity 1,000	Unit value dollars
Apples:				
Boxes.....	1,678.0	1.52	1,509.9	1.51
Baskets.....	82.8	1.76	240.0	1.73
Barrels.....	165.9	4.11	357.6	3.99
Total bushels.....	2,258.5	1.50	2,822.7	1.46
Grapes..... tons	15.9	87.93	18.1	89.06
Pears..... bushels	1,934.3	1.84	1,664.0	1.92

Source: Bureau of Agricultural Economics.

NOTE.—Compiled from records of the Bureau of Foreign and Domestic Commerce.

EXPORTS of apples have not shown as much increase over last year as was expected earlier in the season. Failure of apples to move out in larger volume was due chiefly to the competition from the large Canadian and European apple crops. The Canadian apple crop was substantially above average, particularly the crop in Nova Scotia. In years of large crops in Nova Scotia, as much as 70 percent of the production is exported to the United Kingdom. The apple crop in central European countries was large this season but crops in the United Kingdom and France, the two most important outlets, were smaller than last year.

In years of large European apple crops, exports from the United States are generally slow in starting since markets in countries with large crops are well supplied with domestic apples until late fall. Nova Scotian apples are usually exported heavily in the fall months and in years of average or small crops the bulk of the exports are made before January 1. Exports this year from Nova Scotia will probably extend over a longer period, but by the middle of January the volume of exports should be substantially reduced.

Reports from the United Kingdom indicate that the local crop is practically all consumed. This means that the United Kingdom will have to depend upon the United States and Canada for the bulk of its apple supplies until about April 1, when Aus-

tralian and New Zealand apples will be available in volume.

Imports of American apples by France have been below early season expectations not only because of competition from home-grown apples and apples from nearby countries but because the price of apples in terms of francs is high. Indications point, however, to an increase in imports during the winter months. A large apple crop in the Netherlands has resulted in a reduction in the imports of United States apples by that country, but Dutch imports should increase when the lower seasonal duty becomes effective March 1. In Germany, also, the apple crop was large, but this will have little bearing on American apple exports, since Germany has ceased to be an important outlet for apples from this country. Sweden, Norway, Finland, and Belgium also have seasonal duties on apples.

The duty on apples has been reduced in seven of the trade agreements signed to date. Quotas on American apples and pears were increased by France and guaranteed by Switzerland without any change in duties. In six other agreements the existing duties were bound at existing rates which for the most part were already low; in only the Nicaraguan Agreement was no concession secured. Nicaragua is a relatively unimportant market.

EXPORTS of fresh pears from the United States in the 4-month period, July to October, amounting to 1,664,000 bushels, were somewhat below exports during the same period last year. Usually about two-thirds of the exports are made in these months. The decline in exports is due not so much to competition from large pear crops of other countries as to competition with apples. Pears are a relatively small crop in Canada and in most European countries.

Exports of pears to Europe have been smaller due to a reduction in imports by the United Kingdom, the Netherlands, and France. Most other European countries have taken larger

quantities than last year. Exports to Canada, Cuba, Brazil, and Palestine were also smaller in this period than last year.

There are some indications that exports of pears may pick up after January 1. Lower duties will be in effect in the Netherlands and in Norway after the first of the year. In Sweden the lower duty became effective December 1. Supplies of home-grown pears and apples should be largely out of the way in most countries by January 1 and competition from this source removed. On the other hand, the quantity of pears exported to Europe after January 1 will depend to a considerable extent on competition from pears from Argentina, Australia, and New Zealand. Crops from these countries usually reach the European market in March. Large crops in these countries will shorten the exporting season for American pears.

Pears have gained even more than apples under the trade agreements program. In addition to the duty reductions secured on pears in the agreements with Belgium, Sweden, the Netherlands, Haiti, El Salvador, and Colombia, the duty on pears was reduced substantially in the Canadian Agreement. Canada is second only to the United Kingdom as a market for American pears. France and Switzerland granted the United States the same concessions on pears as on apples. Existing duties were bound in six other agreements.

EXPORTS of grapes indicate that 1937-38 may be a record year. Exports to Canada and the United Kingdom, the two principal markets, and to most other countries have been larger than last year and much above those of any other year since the depression.

Concessions on grapes have been secured in 8 of the 16 trade agreements signed to date. Canada, the most important market, reduced the duty by about 25 percent.

A. C. EDWARDS.

The Chains Sell Fruits and Vegetables

AN important development of recent years in the marketing of fresh fruits and vegetables has been the introduction of mass distribution methods by the grocery chain-store systems. This factor, probably more than any other, has led to changes not only in retail practices, but in terminal market organization and even in methods of handling fruits and vegetables at country points.

Because of the importance of this development to fruit and vegetable growers, the Bureau of Agricultural Economics undertook in cooperation with the New Jersey College of Agriculture a study of chain-store distribution of fruits and vegetables in the Northeastern States. The results of this study, recently published by the Bureau, provide the basis for the present discussion.

THE period of rapid growth of the corporate grocery chains began early in the decade of the twenties. At this time they were concentrating mainly on dry groceries and were not important factors in fruit and vegetable distribution. It is only within the last 10 or 12 years that they have gone extensively into the handling of perishable produce in their retail stores.

It is estimated that at present the chains are handling approximately one-fourth of all the fruits and vegetables consumed in the eight principal cities of the Northeast. They are retailing about 30 percent of the supply in New York City, 21 percent in Philadelphia, and 32 percent in Boston. No single system has more than 10 or 12 percent of the total supply in any of these cities.

The estimated proportions of fruits and vegetables handled by grocery chains in the principal cities of the Northeast, 1936, are shown in the following table:

City	Total volume fruits and vegetables	Estimated cars handled by chains	Percent handled by chains
New York metropolitan area	245,000	73,000	30
Philadelphia	69,923	14,370	21
Boston	56,587	18,000	32
Newark	28,974	6,000	21
Providence	10,432	2,970	28
New Haven	8,607	750	9
Hartford	6,566	1,350	21
Springfield	5,586	1,282	23
Total	431,675	117,702	27

THE growth of chain systems has been accompanied by a tendency toward vertical integration. Most of them operate their own produce warehouses for servicing their retail units with fruits and vegetables. This function corresponds roughly to that performed by the wholesaler in the regular terminal markets in providing supplies for the independent retailer.

Chain systems are buying an increasing proportion of their fruits and vegetables direct from growers and shippers at country points rather than from handlers in the terminal wholesale markets. At present it is estimated that the chains in New York City are buying almost half of their supplies in this way; and those in Boston and Philadelphia, more than half. These percentages are not typical for all chain systems. As a rule, the larger systems purchase the bulk of their supplies direct from growers and shippers, whereas some of the smaller ones rely mainly on the regular wholesalers.

There are several reasons for this development of direct buying on the part of the chains. By having the produce come direct from the carriers to their warehouses, they avoid some of the cartage and other handling costs incurred in the regular channels. The practice also enables them to gage their supplies to their store requirements more accurately than they would

be able to do by relying altogether on what happens to be available in the regular wholesale markets. The fact that many of these wholesale markets are congested and ill-adapted to the needs of large buyers is another reason why the chains have sought to avoid them by dealing directly with growers and shippers.

THROUGH the application of integrated large-scale methods the chain systems have unquestionably been enabled to effect economies in fruit and vegetable distribution. Part of these economies have been in the operation of the retail store, where the chains have stepped up efficiency through improved and standardized methods of merchandising and display, through an increase in the volume of sales per store and per employee, and through greater attention to losses from waste and spoilage. Their efforts along these lines have been matched by many nonchain retailers, but by no means all of them.

Equally important as a means of improved efficiency on the part of the chains is the integration of the functions of wholesaling and jobbing with that of retailing. Much of the duplication of marketing facilities and many of the marketing costs resulting from innumerable buying and selling transactions at various stages in the marketing process are eliminated within an integrated chain-store system.

As an example, all purchasing and assembling of fruits and vegetables for the retail stores is done at the chain warehouses. Store managers are thus relieved of the necessity for visiting the wholesale markets each day in order to procure supplies of fresh fruits and vegetables. This is one of the most burdensome and time-consuming tasks performed by the nonchain retailer.

A comparison of the labor efficiency of a chain-store system in Philadelphia with the regular marketing channels for fruits and vegetables in that city indicates a distinct advantage for the former. The comparison covered all

terminal handling operations up to the retail store. In the case of the chain system, 223 warehouse employees and truck operators were required to service the chain units in the district with 5,350 cars of vegetables during the year 1936. This is an average of roughly 24 cars per employee.

In the regular marketing channels the equivalent of more than 4,000 full-time people were required to handle 41,000 cars of produce up to the retail store, an average of only about 10 cars per person. This comparison is not an exact one, but it points to the conclusion that so far as labor efficiency is concerned, the advantage is definitely with the mass distributor.

DIFFERENCES in labor efficiency as between the two systems of distribution do not mean that their margins or their prices (either to growers or consumers) are correspondingly different. If handlers in the regular marketing channels are to meet the competition of the chain systems, they must buy and sell at substantially the same prices and take approximately the same margins as the chains.

Insofar as the chains have had any effect on food margins, the change has tended to become general throughout the trade. The influence of the chains on marketing spreads therefore cannot be measured by comparing their margins with those of other types of handlers who must meet chain-store competition to stay in business.

The grower of fruits and vegetables is interested in chain-store developments first because of their effect on marketing costs and margins; and secondly, from the standpoint of the type of marketing organization needed to meet the new conditions of mass distribution.

Thus far growers in the Northeastern States have sold to the chains mainly as individuals rather than through any type of cooperative marketing association. The newer types of marketing

organizations for fruits and vegetables being developed by growers in this area (notably the regional produce markets and the local auctions in New Jersey) are not used extensively by the chains as a source of produce supplies. There are several reasons for this, chief of which is that these marketing organizations are not at present in position to provide the chains with large lots of uniform produce on a consignment basis.

IN making purchases of fruits and vegetables at country points, the chains usually buy either through private local dealers who work on a brokerage basis, or directly from individual growers. When buying direct from the grower the chains usually select those who can deliver sizable lots of uniform produce put up in packages of standard weight.

As a general thing the small grower is handicapped in securing a market outlet with a chain system.

In producing areas so near to the chain store warehouse that growers can conveniently deliver their own produce to it, no local marketing organization is necessary for assembling produce for sale to the chain systems. Where such an intermediary exists between the grower and the chain, it is likely to represent an unnecessary marketing cost.

In more distant producing sections, however, local assembling (and in some cases, grading and packing) is a necessary function in a system of mass distribution. Although they have not as yet done so in most parts of the Northeast, it is a function which growers might organize to perform for themselves.

A. C. HOFFMAN.

Trends in Fruit Production

THE total volume of fruit produced in the United States in the 1937-38 season is indicated to be the largest in the history of the country. It is the result of a year of exceptionally large yields of apples and other deciduous fruits coinciding with large citrus crops. There has been a general upward trend in total fruit production over the past two decades. The index number of production of all fruits (1924-29=100) rose from an average of 86 for the 6 years 1919-24 to an average of 112 for the 6 years 1931-36. During the same period there has been a decrease in the number of acres of land planted to fruit trees. From 1920 to the present the total acreage of fruit trees, bearing and nonbearing, decreased about 12 percent, although the land in trees of bearing age decreased but slightly.

Trends in total acreage and total production, however, are not a result of proportional changes in the acreage and production of the individual fruits. Individual acreage and production

figures reveal definitely antipodal trends in some of the major fruits; consequently, the total volume of fruit production is not only larger now than 15 or 20 years ago but the relative importance of some of the individual fruits has changed materially.

SINCE 1910 the total number of apple trees in the United States has been reduced more than 50 percent. More than half of this reduction in tree numbers occurred during the decade 1910-20. It was accompanied by a marked reduction in average annual production of apples.

The sharp reduction in apple tree numbers since 1920, however, has not resulted in a material decline in the producing capacity of the apple industry. The average production of apples during the past 6 years, after allowing for changes in growing conditions, was only slightly smaller than for the 6-year period preceding.

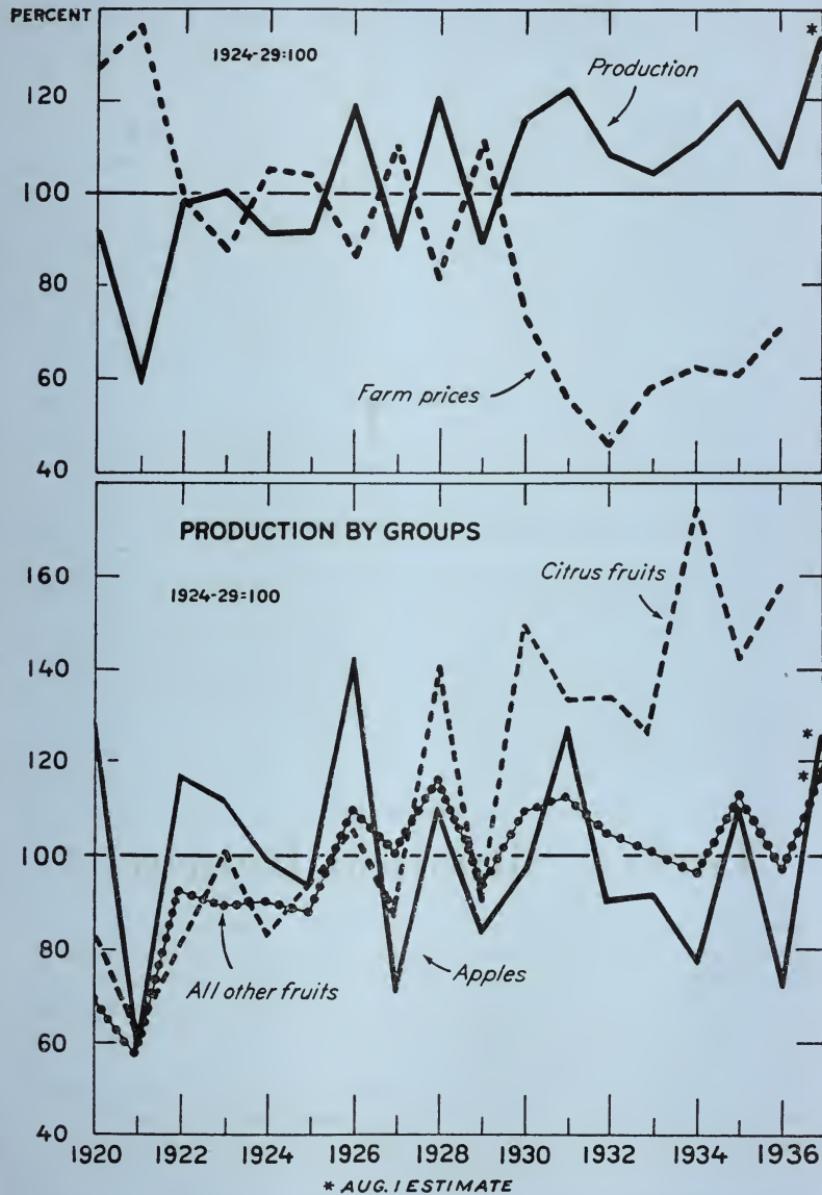
Many tree removals have been from

the least profitable commercial and farm orchards and, therefore, have had relatively little effect upon the total bearing capacity of the industry. Furthermore, the bearing surface of the younger orchards has increased as

the trees grew older, and has tended to increase the yield per bearing tree.

The present number of apple trees yet to come into bearing is not sufficient to maintain the present number of trees of bearing age. It is doubtful

Indexes of Fruit Production and of Fruit Prices



whether the average yield per bearing tree will increase sufficiently to prevent a slight downward trend in apple production during the next decade.

THREE has been rapid increase in production of oranges and grapefruit during the last two decades. The number of bearing orange trees more than doubled from 1920 to 1935; the number of grapefruit trees of bearing age in 1935 was 5 times the number in 1920. Not only has the number of bearing trees increased, but the bearing surface of the trees has enlarged as the trees matured, and the average yield per tree has thereby been increased.

The index number of citrus fruit production (1924-29=100) rose from an average of 79 for the 6 years 1919-24 to 145 for the period 1931-36, inclusive. In view of the number of trees yet to come into bearing, and the prospects for further increase in bearing capacity of the younger trees, it is likely that the upward trend in citrus fruit production will continue during the next decade, although perhaps at a more moderate rate.

TOTAL production of all other fruits trended upward during the decade from 1920 to 1930, but since then has shown no marked trend. The production of grapes increased sharply during the early 1920's, reaching a peak in 1928, and largely accounting for the upward trend in

the production index of all fruits (excluding citrus and apples) during this period. Since then, some reduction in grape acreage and production has occurred, but increased plantings of recent years point to some increase in grape production during the next few years.

The total number of bearing peach trees declined about 18 percent from 1920 to 1935, but there has been no marked downward trend in total peach production. Increased plantings of peach trees during the last 3 years will probably result in some increase in peach production during the next 5 years.

The number of bearing pear trees increased about 15 percent from 1920 to 1935; this increase in bearing capacity has been accompanied by an upward trend in pear production, which is likely to continue for several years.

IT seems likely that during the next 5 to 10 years the upward trend in the total volume of fruit production will continue, although perhaps at a slower rate than during the past decade. A continuation of the upward trends in the production of citrus fruits and pears, together with possible increases in the production of peaches, grapes, and some other fruits, will no doubt more than offset any downward trend which may occur in apple production.

G. E. OCKEY.

Turkey Situation Improved

Turkey growers fared rather better in 1937 than in 1936, with prices averaging 2½ cents a pound higher at local farm markets. The estimated crop was 10 percent less than in 1936, and a larger proportion of it was sold for Thanksgiving markets. A year ago, prices declined from Thanksgiving to Christmas; during the recent holidays prices held steady, supported by the smaller number of birds available for Christmas markets.

The heavy Thanksgiving marketings resulted in the largest December 1 cold storage turkey holdings on record—about 19,000,000 birds compared with 18,000,000 a year ago. The supply is considered not excessively large in view of the increasing out-of-season demand by restaurants and hotels. The big storage stocks from the 1936 record crop had been practically depleted by Thanksgiving.

Prospects are for a larger hatch of turkeys in 1938, in view of the higher prices in 1937.

Frozen Foods Industry Expanding

MORE than 75 fresh foods—fruits, vegetables, meats, poultry, and fish—are being “frozen” now for out-of-season consumption. The “quick freeze” industry has increased greatly in recent years, and attained something of “boom” proportions during the past 12 months.

The foods are stripped of waste, packaged and frozen at points of production; they are transported and stored under refrigeration, and kept at low temperatures in specially designed show-cases of retailers. Distribution has been chiefly in the East (it is said that 3,000 retail stores in New York City alone handle the products), but distribution is being rapidly expanded.

Operators of cold-storage warehouses see in the development an opportunity for utilizing much of the surplus of cold-storage space which has existed since the World War. Indicative of the growth of the “quick freeze” industry and the increased use of cold-storage space, the monthly cold-storage holdings of frozen and preserved

fruits have increased about 500 percent during the past 14 years.

Modernization of equipment and methods of refrigeration in recent years suggests the likelihood of further expansion of the “quick freeze” industry and the inclusion of a wider variety of perishable foods. Vegetables now being preserved in their fresh green state include green peas, snap beans, green Lima beans, sweet corn, spinach, asparagus, and green broccoli. On December 1 there were about 30,000,000 pounds of quick frozen vegetables of various kinds in the cold-storage warehouses which report monthly to the Bureau of Agricultural Economics.

The “quick freeze” industry has grown so that the Bureau now reports separately each month the cold storage holdings of green peas, snapbeans, Lima beans, sweet corn, spinach, and other unclassified vegetables. Strawberries, blueberries, cherries, and all other frozen fruits are reported. Other products will be added as the industry expands.

W.M. BROXTON.

Measures of Domestic Demand

[1924-29=100]

	November				Percent change		
	1929	1933	1936	1937	1936-37	1933-37	1929-37
National income-----	106.3	64.9	92.2	94.9	+3	+46	-11
Nonagricultural income:							
Total-----	107.1	66.3	92.6	95.1	+3	+43	-11
Per capita-----	100.9	61.3	82.9	84.4	+2	+38	-16
Factory pay rolls:							
Total-----	102.2	55.4	89.1	87.7	-2	+58	-14
Per employed wage earner-----	99.0	69.6	92.5	93.2	+1	+34	-6
Industrial production:							
Total-----	103.0	67.4	106.7	85.2	-20	+26	-17
Factories processing farm products-----	103.1	92.6	113.3	85.4	-25	-8	-17
Other factory production-----	103.0	53.7	105.4	80.8	-23	+50	-22
Construction activity:							
Contracts awarded, total-----	85.1	39.7	47.9	43.8	-9	+10	-49
Contracts awarded, residential-----	60.0	11.6	35.8	30.4	-15	+162	-49
Employment in production of building materials-----	90.1	42.0	60.2	57.5	-4	+37	-36
Cost of living:							
Food-----	102.8	68.2	79.5	80.5	+1	+18	-22
“All other items”-----	98.2	82.3	82.9	86.0	+4	+4	-12
Purchasing power of nonagricultural income per capita:							
For food-----	98.2	89.9	104.3	104.8	(1)	+17	+7
For “all other items”-----	102.7	74.5	100.0	98.1	-2	+32	-4

¹ Denotes change of less than $\frac{1}{2}$ of 1 percent.

NOTE.—All indexes adjusted for seasonal variation except “Cost of living.”

General Trend of Prices and Wages

[1910-14=100]

Year and month	Whole- sale prices of all com- modities ¹	Industrial wages ²	Prices paid by farmers for com- modities used in ³ —			Farm wages	Taxes ⁴
			Living	Produc- tion	Living and produc- tion		
1920	225	222	222	174	201	239	209
1921	142	203	161	141	152	150	223
1922	141	197	156	139	149	146	224
1923	147	214	160	141	152	166	228
1924	143	218	159	143	152	166	228
1925	151	223	164	147	157	168	232
1926	146	229	162	146	155	171	232
1927	139	231	159	145	153	170	238
1928	141	232	160	148	155	169	239
1929	139	236	158	147	153	170	241
1930	126	126	148	140	145	152	238
1931	107	207	126	122	124	116	217
1932	95	178	108	107	107	86	188
1933	96	171	109	108	109	80	161
1934	109	182	122	125	123	90	153
1935	117	191	124	126	125	98	154
1936	118	199	122	126	124	107	—
1936							
December	123	211	124	133	128	—	—
1937							
January	125	209	—	—	130	103	—
February	126	211	—	—	132	—	—
March	128	218	127	139	132	—	—
April	128	219	—	—	134	112	—
May	128	219	—	—	134	—	—
June	127	220	129	141	134	—	—
July	128	218	—	—	133	123	—
August	128	220	—	—	132	—	—
September	128	215	129	132	130	—	—
October	125	214	—	—	128	126	—
November	122	205	—	—	128	—	—

Index numbers of farm prices [August 1909-July 1914=100]

Year and month	Grains	Cotton and cot- tonseed	Fruits	Truck crops	Meat ani- mals	Dairy prod- ucts	Chick- ens and eggs	All groups	Ratio of prices received to prices paid	
1920	232	248	191	—	174	198	223	211	105	
1921	112	101	157	—	109	156	162	125	82	
1922	106	156	174	—	114	143	141	132	89	
1923	113	216	137	—	107	159	146	142	93	
1924	129	212	125	150	110	149	149	143	94	
1925	157	177	172	153	140	153	163	156	99	
1926	131	122	138	143	147	152	159	145	94	
1927	128	128	144	121	140	155	144	139	91	
1928	130	152	176	159	151	158	153	149	96	
1929	120	144	141	149	156	157	162	146	95	
1930	100	102	162	140	133	137	129	126	87	
1931	63	63	98	117	92	108	100	87	70	
1932	44	47	82	102	63	83	82	65	61	
1933	62	64	74	105	60	82	75	70	64	
1934	93	99	100	104	68	95	89	90	73	
1935	103	101	91	127	118	108	117	108	86	
1936	108	100	100	113	121	119	115	114	92	
1937										
January	143	107	105	115	128	128	110	131	101	
February	146	108	127	143	126	126	101	127	96	
March	145	116	133	131	129	125	102	128	97	
April	154	117	142	127	130	120	104	130	97	
May	149	112	152	139	133	116	96	128	96	
June	139	107	157	124	137	113	95	124	93	
July	139	106	145	96	144	116	102	125	94	
August	119	90	123	104	151	119	109	123	93	
September	111	74	121	117	144	123	119	118	91	
October	93	67	99	130	136	128	127	112	88	
November	85	65	88	124	120	132	135	107	84	
December	86	64	76	112	111	136	127	104	81	

¹ Bureau of Labor Statistics Index with 1926=100, divided by its 1910-14 average of 68.5.

² Average weekly earnings, New York State factories. June 1914=100.

³ These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

⁴ Index of farm real estate taxes, per acre, 1913=100.

⁵ Preliminary.